



## NOAA In Your State

# Alabama

**NOAA** is an agency that enriches life through science. Our reach goes from the surface of the sun to the depths of the ocean floor as we work to keep citizens informed of the changing environment around them. From daily weather forecasts, severe storm warnings, and climate monitoring to fisheries management, coastal restoration and supporting marine commerce, NOAA's products and services support economic vitality and affect more than one-third of America's gross domestic product. NOAA's dedicated scientists use cutting-edge research and high-tech instrumentation to provide citizens, planners, emergency managers and other decision makers with reliable information they need when they need it.

The following is a summary of NOAA facilities, staff, programs, or activities based in, or focused on, your state or territory: Starting with highlights, then by [congressional districts and cities or towns](#), [coastal programs](#), and then [statewide programs](#).

### Highlights of NOAA in Alabama

<a href="#">Weeks Bay National Estuarine Research Reserve</a>	Fairhope	AL-1
<a href="#">OR&amp;R Gulf of Mexico Disaster Response Center</a>	Mobile	AL-1
<a href="#">Science On a Sphere® at GulfQuest National Maritime Museum of the Gulf of Mexico</a>	Mobile	AL-1
<a href="#">National Water Center</a>	Tuscaloosa	AL-7

The state of Alabama also has three Weather Forecasting Offices, one Regional Office, two Science on a Sphere® exhibitions, and one National Estuarine Research Reserve.

### [Weather Forecast Offices](#)

Mobile AL-1  
Huntsville AL-5  
Birmingham AL-6

[National Weather Service \(NWS\) Weather Forecast Offices \(WFO\)](#) are staffed 24/7/365 and provide weather, water, and climate forecasts and warnings to residents of Alabama. There are 122 [WFOs nationwide](#) of which three are in Alabama. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, hurricanes, winter storms, floods, and heat waves to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including wireless emergency alerts, social media, [weather.gov](#), and NOAA Weather Radio All Hazards. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs that strengthen working relationships with local partners in emergency management, government, the media and academic communities. Forecasters provide Impact-based Decision Support Services (IDSS), both remotely and on-site during critical emergencies such as wildfires, floods and chemical spills, and major recovery efforts. To gather data for forecasting and other purposes, NWS WFO staff monitor, maintain and use Automated Surface Observing Stations and Doppler Weather Radar. In addition to the WFOs, NWS operates specialized national prediction [centers](#) and regional headquarters throughout the U.S. for a total of 168 operational units. Over 85% of NWS' workforce is in the field. For current Alabama weather, visit [www.weather.gov](#) and, on the national map, click on the relevant county or district.

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### [Science On a Sphere®](#)

Mobile AL-1  
Birmingham AL-7

[Science On a Sphere \(SOS\)](#) is a room-sized global display system that uses computers and video projectors to display planetary data onto a six-foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain in a way that is simultaneously intuitive and captivating what are sometimes complex environmental processes. They are located at the GulfQuest National Maritime Museum of the Gulf of Mexico in Mobile and McWane Science Center in Birmingham.

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#### **[AL-1](#)**

##### **[Fairhope](#)**

##### **Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

The US Climate Reference Network (USCRN) is an operationally viable research network of more than 138 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). ARL/ATDD manage the USCRN in partnership with NOAA's NESDIS/NCEI.

**National Ocean Service (NOS) - [Weeks Bay National Estuarine Research Reserve](#)**

The National Estuarine Research Reserve System is a network of protected areas focused on long-term research, monitoring, stewardship, education, and training. NOAA's Office for Coastal Management provides funding and national guidance, and each site is managed on a daily basis by a lead state agency or university with input from local partners. The 9,317 acre Weeks Bay Reserve was designated in 1986 and is managed by the Alabama Department of Conservation and Natural Resources. Located between the major metropolitan areas of Mobile, AL and Pensacola, FL, the reserve consists of tidal and forested wetlands within the greater Mobile Bay estuarine system along the northern Gulf of Mexico, and supports numerous rare and endangered species.

**National Ocean Service (NOS) – [Margaret A. Davidson Graduate Fellowship](#)**

The Margaret A. Davidson Graduate Fellowship program funds graduate student research and professional development opportunities within the National Estuarine Research Reserve System. The program supports collaborative research addressing local management challenges that may influence future policy and management strategies. The Davidson Fellow at Weeks Bay National Estuarine Research Reserve will focus their research on interactive effects of nutrient enrichment and wave energy on plant community structure and ecosystem stability.

***Mobile***

**Office of Oceanic and Atmospheric Research (OAR)- [The Estuarium at the Dauphin Island Sea Lab](#)**

The National Sea Grant College Program (Sea Grant) is a federal-university partnership administered by NOAA that integrates research, extension outreach, and education. Sea Grant forms a national network of 34 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. In Mobile, Sea Grant operates The Estuarium at the Dauphin Island Sea Lab. Additionally, Sea Grant educators are based at the Mobile County Environmental Studies Center, and Sea Grant administrative offices are based in Mobile as well.

**National Ocean Service (NOS) - [Mobile Bay Water Level Network](#)**

NOAA's Center for Operational Oceanographic Products and Services partnered with Mobile County Commission, the Alabama Department of Transportation and the National Weather Service to install five microwave sensors at various locations throughout Mobile Bay. This is the first time NOAA has used this type of sensor, which is designed to withstand heavy storm-water levels while providing real-time storm surge data to Mobile County's emergency managers, the NWS Weather Forecast Office there, and others.

**National Ocean Service (NOS) - [Mobile Bay Marine Channels Forecast System](#)**

NOAA's Mobile Bay Marine Channels Forecast (MBMCF) System is a relatively new decision support tool that centralizes critical oceanographic and meteorological forecast data from the National Weather Service and the National Ocean Service into one location. Implemented in 2021, MBMCF provides local mariners with a completely integrated view of forecasts along the area's shipping channels. Vessel operators transiting Mobile Bay can now view all NOS water level and tidal current forecasts right alongside NWS 24-hour weather forecasts for winds, wind gusts, rain chance, marine hazard alerts, and visibility less than 1 mile. These forecasts are available at 19 points along the area's shipping channels all the way to the Port of Mobile.

**National Ocean Service (NOS) – NOAA [Gulf of Mexico Disaster Response Center](#)**

The Gulf of Mexico Disaster Response Center (DRC), managed by the Office of Response and Restoration (OR&R), delivers state of the art science and information to emergency managers and other critical stakeholders to assist them in protecting and restoring the Gulf's coasts, communities, and economies. The DRC, located in Mobile, builds a collaborative environment for preparedness, response, recovery, and resiliency efforts by offering the Science of Oil Spills,

Science of Chemical Releases, and Science of Coastal Natural Disasters trainings annually for responders in the Gulf and across the country. This hardened facility is built to withstand a Cat-5 storm and is home to staff from several NOAA programs and provides a large multifunction space for partners to conduct trainings, meetings, drills, and emergency response operations. Lastly, the Scientific Support Coordinator (SSC) in Alabama and the Gulf of Mexico Marine Debris Regional Coordinator are based in Mobile at NOAA's Disaster Response Center.

**National Ocean Service (NOS) - [OR&R Preparedness, Response, and Restoration Coordinators](#)**

NOAA's Office of Response and Restoration (OR&R) is a center of expertise in preparing for, evaluating, and responding to threats to coastal environments, including oil and chemical spills, releases from hazardous waste sites, disasters, and marine debris. To fulfill its mission of protecting and restoring NOAA trust resources, OR&R provides scientific and technical support to prepare for and respond to environmental threats that coastal communities face; determines damage to natural resources from those releases; protects and restores marine and coastal ecosystems; and works with coastal communities to address critical local and regional coastal challenges.

The **Regional Preparedness Coordinator (RPC)** is strategically placed within the region to ensure that NOS and our partners are able to effectively prepare for, respond to, and recover from all hazards, including coastal disasters. The RPC serves as a liaison between NOS and its federal, state, and local disaster preparedness and emergency response partners. A key role of the RPC is to better understand the needs and opportunities within the region and to ensure partners have the tools and resources necessary to inform decision-making. The RPC has expertise across the spectrum of emergency management and provides preparedness, response, and recovery services including planning, training, exercises, response coordination, continuous improvement, and long-term recovery. The RPC, based in Mobile, Alabama, serves the Gulf of Mexico region – Texas, Louisiana, Mississippi, and Alabama.

Eleven regionally based **Scientific Support Coordinators (SSC)** harness the input of a multi-disciplinary team to address issues such as oil slick trajectory forecasting, environmental tradeoffs, best practices, resources at risk, and chemical hazard assessment to reduce risks to coastal habitats and resources. The SSC in Alabama is based in Mobile at NOAA's Gulf of Mexico Disaster Response Center.

The [NOAA Marine Debris Program \(MDP\)](#) in the Office of Response and Restoration (OR&R) supports national and international efforts to reduce the impacts of marine debris. The **MDP Gulf of Mexico Regional Coordinator**, based in Mobile at NOAA's Disaster Response Center, supports coordination efforts with regional stakeholders, provides support to grant-funded projects, tracks progress of projects, and conducts regional marine debris outreach to local audiences.

**National Weather Service (NWS) – [Weather Forecast Office](#)**- See [Page 2](#) for details.

**NOAA Office of Education — [Coastal Ecosystem Learning Centers \(CELC\) network](#)**

In Alabama, NOAA's Office of Education provides support to the Dauphin Island Sea Lab (DISL) in Mobile as part of the Coastal Ecosystem Learning Centers (CELC) network, which is made up of 25 aquariums and marine science education centers located throughout North America. The CELC network collaborates on a variety of initiatives, ranging from youth summits to multi-institution projects, with the goal of better engaging the public in understanding, appreciating, and protecting marine and freshwater ecosystems. Through the CELC network, the Office of Education provides guidance, resources, and scientific expertise to these institutions, which collectively reach an estimated 20 million people annually across North America. By coordinating with the CELC network, NOAA helps to further its mission of engaging the public in protecting and preserving coastal and marine ecosystems.

**Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere® at GulfQuest National Maritime Museum of the Gulf of Mexico](#)** - See [Page 2](#) for details.

**AL-4**  
**Gadsden**

**Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

The US Climate Reference Network (USCRN) is an operationally viable research network of more than 138 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). ARL/ATDD manage the USCRN in partnership with NOAA's NESDIS/NCEI.

**AL-5**  
**Huntsville**

**National Weather Service (NWS) – [Weather Forecast Office](#)**- See [Page 2](#) for details.

**AL-6**  
**Birmingham**

**National Weather Service (NWS) – [Weather Forecast Office](#)**- See [Page 2](#) for details.

**AL-7**  
**Birmingham**

**Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere® at McWane Science Center](#)**- See [Page 2](#) for details.

**Selma**

**Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

The US Climate Reference Network (USCRN) is an operationally viable research network of more than 138 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). ARL/ATDD manage the USCRN in partnership with NOAA's NESDIS/NCEI.

**Tuscaloosa**

**National Weather Service (NWS) - [National Water Center](#)**

Opened in 2015 and located on the campus of the University of Alabama in Tuscaloosa, the NWS National Water Center (NWC) is the first national center for water prediction operations in the U.S. The NWC also supports research and collaboration across the federal water science and management agencies, including the U.S. Geological Survey (USGS), the U.S. Army Corps of Engineers, and the Federal Emergency Management Agency (FEMA). The NWC features a water resources forecasting operations center, an applied water resources research and development center, a proving ground for transitioning research into operations, a geo-intelligence laboratory and an airborne snow and soil moisture observation analysis facility. In addition to NWS employees, the NWC hosts staff from USGS, FEMA and academic institutions.

**National Environmental Satellite, Data, and Information Service (NESDIS) - [The Center for Satellite Applications and Research](#) - [CoastWatch Water Node, collocated with National Water Center, Tuscaloosa, Alabama](#)**

The CoastWatch mission is to provide and ensure timely access to near real-time satellite data to protect, restore, and manage U.S. coastal ocean resources, and understand climate variability and change to further enhance society's quality of life. Our primary users include federal, state, and local marine scientists, coastal resource managers, and the public. There are two components to CoastWatch: Central Operations and Regional Nodes. Central Operations, managed by NOAA's National Environmental Satellite, Data, and Information Service (NESDIS), coordinates the processing, delivery, quality control and storage of data products.

The newest addition to the NOAA CoastWatch family, the Water Node is housed within the Office of Water Prediction of the National Weather Service and located in the National Water Center in Tuscaloosa, AL. The focus of the Water Node is to facilitate the development and use of satellite data and data products for understanding and forecasting hydrology and water quality of inland waters.

**NOAA Commissioned Officer Corps (NOAA Corps) - [Operations Officer, National Water Center](#)**

The NOAA Commissioned Officer Corps stations an officer at the National Water Center in support of the Office of Water Protection (OWP). This officer serves as the Program Manager for a variety of OWP projects, such as the Airborne Snow and Soil Moisture Survey Program, as well as coordinates resources and procurement for the program. In addition, the officer manages a host of other administrative and financial management responsibilities in tandem with public outreach responsibilities, engaging the local community and collaborating with the University of Alabama.

**Office of Oceanic and Atmospheric Research (OAR) - [Cooperative Institute for Research to Operations in Hydrology](#)**

The Cooperative Institute for Research to Operations in Hydrology (CIROH) was awarded to the University of Alabama in 2022. CIROH, a partnership between NOAA and the University of Alabama, is a national consortium committed to advancing water prediction – the forecasting of streamflow entering water systems, extreme events such as floods and droughts, and water quality – and building community resilience to water-related challenges. CIROH scientists work to improve the understanding of hydrologic processes, operational hydrologic forecasting techniques and workflows, community water modeling, translation of forecasts to actionable products, and use of water predictions in decision making. CIROH conducts research across four themes: (1) Water resources prediction capabilities; (2) Community water resources modeling; (3) Hydroinformatics; and (4) Application of social, economic, and behavioral science to water resources prediction.

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**Coastal**

**National Marine Fisheries Service (NMFS) - [Deep-Sea Coral Research and Technology Program](#)**

NOAA's Deep Sea Coral Research is administered by NOAA Fisheries' Office of Habitat Conservation. Mandated by the Magnuson-Stevens Fishery Conservation and Management Act, it is the nation's only federal research program dedicated to increasing scientific understanding of deep-sea coral ecosystems. Deep-sea corals occur off of every coastal state in the country, and create important habitats for countless species, including many fish species. The Program collaborates closely with partners, including other NOAA offices, to study the distribution, abundance, and diversity of deep sea corals and sponges. This work then informs critical management decisions in the waters of the United States and its territories. These decisions enhance the sustainability of deep-sea fisheries and other ocean uses, while conserving deep-sea coral and sponge habitats.

The Program works with partners to complete multi-year regional fieldwork initiatives, as well as smaller projects around the country, centered on integrating new and existing information on these vulnerable and biologically diverse habitats.

The first research initiative took place from 2009 to 2011 in the U.S. South Atlantic region and provided valuable information to help decision-makers refine protected area boundaries. To date, the Program has completed one or more initiatives in each region of the United States.

**National Ocean Service (NOS) – [Bipartisan Infrastructure Law](#)**

The Bipartisan Infrastructure Law is helping coastal communities build the future they want to see. The legislation provides a historic investment in coastal protection and restoration that will increase community resilience to climate change and extreme weather events, and improve how we manage our ocean resources. Projects funded under this law protect and restore ecologically significant habitats, including conserving lands that play a critical role in helping communities become more resilient to natural hazards. Alabama received funding for two projects in FY22, as well as funds to build the state's capacity to protect its coastal communities and resources.

**National Ocean Service (NOS) - [Mobile Bay PORTS®](#)**

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community around Mobile Bay at which real-time data are quality-controlled and disseminated to local users for safe and efficient navigation. Real-time data are available for water levels data from eight stations, currents from two stations and meteorological data from six stations. At two of those six stations, visibility (fog) observations are also monitored.

**National Ocean Service (NOS) - [National Water Level Observation Network](#)**

NOS operates two long-term continuously operating tide stations in the state of Alabama, which provide data and information on tidal datums and relative sea level trends, and are capable of producing real-time data for storm surge warning. These stations are located at Dauphin Island and Mobile State Docks. Each station is associated with a set of tidal benchmarks installed in the ground that is used to reference the height of the water levels and helps connect the water level to land. Station data feeds into many CO-OPS products that are used to support safe navigation, mitigate coastal hazards, and protect communities. Such products include:

- Coastal Inundation Dashboard - view water levels in real-time and during storms
- High Tide Flooding Outlooks
- Sea level trends and maps
- Real-time current measurements
- Hydrodynamic models
- Tidal and water level datums

**National Ocean Service (NOS) – [National Coastal Zone Management Program](#)**

Through a unique federal-state partnership, NOAA's Office for Coastal Management works with the Alabama Department of Conservation and Natural Resources and Department of Environmental Management to implement the National Coastal Zone Management Program in Alabama. NOAA provides the state coastal management program with financial and technical assistance to further the goals of the Coastal Zone Management Act and ensure coastal waters and lands are used in a balanced way to support jobs, reduce use conflicts, and sustain natural resources.

**National Ocean Service (NOS) – [Digital Coast](#)**

The Digital Coast is a focused information resource developed to meet the unique needs of coastal communities. Developed and maintained by NOAA's Office for Coastal Management, content comes from hundreds of organizations, including federal, state, and local agencies, plus private sector and non-profit contributors. The Digital Coast website provides not only site-specific coastal data, but also related the tools, training, and information needed to make these data

useful for coastal decision makers. The Digital Coast Act authorizes the Digital Coast as a standing national program and supports NOAA's efforts to increase access to authoritative data, tools, and training that enable coastal communities to plan for long-term resilience, manage water resources, and respond to emergencies.

**National Ocean Service (NOS) and National Marine Fisheries Service (NMFS) - [Gulf of Mexico Alliance](#)**

Staff members from NOAA's Office for Coastal Management and NMFS SERO's' Habitat Conservation Division are active in the Gulf of Mexico Alliance (GOMA). The Gulf of Mexico Alliance is a Regional Ocean Partnership working to sustain the resources of the Gulf of Mexico. Led by the five Gulf States, the broad partner network includes federal agencies, academic organizations, businesses, and other non-profits in the region. GOMA's goal is to significantly increase regional collaboration to enhance the environmental and economic health of the Gulf of Mexico. With funding provided through the Bipartisan Infrastructure Law, NOAA will invest approximately \$56 million over five years to enhance and support the priorities of established regional ocean partnerships, including coordinating interstate and intertribal management of ocean and coastal management issues, and enhancing sharing and integration of data.

**National Ocean Service (NOS) - [Coastal and Estuarine Land Conservation Program](#)**

The Coastal and Estuarine Land Conservation Program brings conservation partners together to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values. Subject to availability of funding, the program provides state and local governments with matching funds to purchase coastal and estuarine lands or obtain conservation easements for important lands threatened by development. Since 2002, the program has protected more than 110,000 acres of coastal land nationally, including over 16,000 acres protected as in-kind matching contributions. Five project grants have been completed in Alabama, and these lands are protected in perpetuity. In addition, two land conservation projects were funded in FY22 in Alabama under the CELCP authority with funding through the Bipartisan Infrastructure Law.

**National Ocean Service (NOS) – [National Coastal Resilience Fund](#)**

The National Coastal Resilience Fund is a partnership effort between NOAA and the National Fish and Wildlife Foundation (NFWF) to restore, increase, and strengthen natural infrastructure to protect coastal communities, while also enhancing habitat for fish and wildlife. In Alabama, five projects have been funded, two in FY18, one in FY21, and two in FY22.

**National Ocean Service (NOS) – [Emergency Coastal Resilience Fund](#)**

The Emergency Coastal Resilience Fund is a partnership effort between NOAA and the National Fish and Wildlife Foundation (NFWF) to increase the resilience of coastal communities within federally-declared disaster areas impacted by hurricanes and wildfires in 2018, 2020, and 2021. In Alabama, the ECRF awarded a project in 2019 and 2021.

**National Ocean Service (NOS) - [OR&R Regional Resource Coordinators](#)**

NOAA's Office of Response and Restoration (OR&R) is a center of expertise in preparing for, evaluating, and responding to threats to coastal environments, including oil and chemical spills, releases from hazardous waste sites, disasters, and marine debris. To fulfill its mission of protecting and restoring NOAA trust resources, OR&R provides scientific and technical support to prepare for and respond to environmental threats that coastal communities face; determines damage to natural resources from those releases; protects and restores marine and coastal ecosystems; and works with coastal communities to address critical local and regional coastal challenges.

OR&R identifies and quantifies environmental injury caused by releases of oil and hazardous materials. Our network of **Regional Resource Coordinators** work with multidisciplinary scientific, economic, and legal teams with the goal of securing the appropriate amount and type of restoration required to restore injured NOAA trust resources and compensate the public for their lost use. We collaborate with NMFS Restoration Center and NOAA General Council

through the Damage Assessment, Remediation, and Restoration Program (DARRP) to ensure the process is efficient, legally defensible and restoration focused. The RRC serving the Southeast/Gulf of Mexico region is based in St. Petersburg, Florida.

**National Ocean Service (NOS) - OR&R [Gulf of Mexico Environmental Response Management Application and Response Tools for Oil and Chemical Spills](#)**

During an emergency, responders and decision-makers need the best available information to protect and restore our coasts from threats like oil and chemical pollution. Gulf of Mexico Environmental Response Management Application (ERMA<sup>®</sup>) fills that need with both static and real-time data, such as ship locations, weather, and ocean currents, providing an easy-to-use common operating picture for environmental responders and decision makers. In addition to ERMA, the Office of Response and Restoration (OR&R) offers a suite of [tools](#) to support emergency responders dealing with oil and chemical spills. From Environmental Sensitivity Index (ESI) maps and data which provide concise summaries of coastal resources including biological resources and sensitive shorelines to GNOME, a trajectory and fate model that predicts the route and weathering of pollutants spilled on water and so much more, these tools provide easy-access to critical data that support a wide range of needs for emergency responders, ultimately supporting our coastal communities.

**National Ocean Service (NOS) - [Marine Debris Projects and Partnerships in Alabama](#)**

The NOAA Marine Debris Program (MDP) in the Office of Response and Restoration (OR&R) leads national and international efforts to reduce the impacts of marine debris. The program supports marine debris removal, prevention, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. The MDP Gulf of Mexico Regional Coordinator, based in Mobile, supports coordination efforts with regional stakeholders, provides support to grant-funded projects, tracks progress of projects, and conducts regional marine debris outreach to local audiences. The MDP also works with local communities and organizations to remove and prevent marine debris. The City of Mobile is restoring Mobile's waterways by removing derelict vessels and displaced docks and piers, and conducting public outreach encouraging owners to secure boats before storms hit and thus decrease vessel loss in future storms. The MDP is also working with the City of Orange Beach to remove 900,000 pounds of large-scale marine debris from the coastal habitats of Orange Beach, restore habitat, and conduct outreach focused on prevention and resilience. The MDP is also partnering with Mobile Baykeeper to prevent marine debris litter through partnerships with local restaurants, businesses, and government agencies, encouraging them to reduce their waste outputs by educating their clients/customers and reducing single-use plastics, and through public art installations that are engaging, functional, and impactful displays of the problem of marine debris. The MDP is working with Gulf of Mexico stakeholders through the Gulf of Mexico Alliance to implement the Gulf of Mexico Alliance Regional Action Plan, which provides a road map for strategic progress in making the Gulf of Mexico, its coasts, people, and wildlife free from the impacts of marine debris. The MDP is also currently working with state and local governments, and other stakeholders, to maintain and exercise the Alabama Marine Debris Emergency Response Guide.

**National Ocean Service (NOS) - [U.S. Integrated Ocean Observing System \(Gulf of Mexico Coastal Ocean Observing System\)](#)**

The U.S. Integrated Ocean Observing System, or IOOS<sup>®</sup>, is a federally and regionally coordinated observing system with 17 interagency and 11 regional partners. The System addresses regional and national needs for coastal, ocean, and Great Lakes data and information. This includes gathering and disseminating regional observations; data management; modeling and analysis; education and outreach; and research and development. The Gulf of Mexico Coastal Ocean Observing System (GCOOS), one of the 11 IOOS regional coastal ocean observing systems, seeks to establish a sustained observing system for the Gulf of Mexico that will provide observations and products needed by users in the region for the purposes of detecting and predicting climate variability and consequences, preserving and restoring healthy marine ecosystems, ensuring human health, managing resources, facilitating safe and efficient marine transportation, enhancing national security, and predicting and mitigating against coastal hazards. GCOOS is developing new local

capacity at universities and marine laboratories to implement a harmful algal bloom early warning system, and helping modernize coastal stations.

**National Ocean Service (NOS) - [Navigation Manager](#)**

NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in Alabama. They help identify the navigational challenges facing marine transportation in Alabama and provide NOAA's resources and services that promote safe and efficient navigation. Navigation managers are on call to provide expertise and NOAA navigation response coordination in case of severe coastal weather events or other marine emergencies.

**National Ocean Service (NOS) - [Navigation Response Team](#)**

The Office of Coast Survey (OCS) maintains the nation's nautical charts and publications for U.S. coasts and the Great Lakes. OCS navigation managers are strategically located in U.S. coastal areas to provide regional support to federal and state agencies in order to assist with navigational challenges. The Office of Coast Survey's Navigation Response Branch (NRB) conducts routine and emergency hydrographic surveys; and working with the regional Navigation Managers, navigation response teams (NRT) work around-the-clock after storms to speed the reopening of ports and waterways. During emergency response, the NRTs provide time-sensitive information to the U.S. Coast Guard or port officials, and transmit data to NOAA cartographers for updating the Coast Survey's suite of navigational charts. NRT-Stennis is assigned to Stennis, MS and is able to respond within 24 to 48 hours.

**National Weather Service (NWS) - [Center of Excellence in Marine Technology](#)**

The National Weather Service (NWS), through its National Data Buoy Center (NDBC), develops, deploys, operates, and maintains the current national data buoy network of moored and drifting weather buoys and land stations that serve each of the Nation's coastal states and territories. Within this network, 110 of the buoys and 51 of the land stations are maintained directly by NDBC. Located at NASA's Stennis Space Center in Mississippi, supports weather and marine warning and forecast services in real time by providing deep ocean and coastal meteorological and oceanographic observations. These data provide valuable information used by NWS supercomputers to produce computer-generated model forecasts of the atmosphere and climate. NDBC manages the Volunteer Observing Ship program to acquire additional meteorological and oceanographic observations supporting NWS mission requirements. NDBC also supports operational and research programs of NOAA and other national and international organizations.

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**Statewide**

**National Marine Fisheries Service (NMFS) - [Restoration Center](#)**

The [NOAA Restoration Center](#), within the [Office of Habitat Conservation](#), works with partners across the nation to restore habitat to sustain fisheries, recover protected species, and maintain resilient coastal ecosystems and communities. We have over 30 years conducting habitat restoration through competitive funding opportunities and technical assistance. We also work to reverse habitat damage from disasters like oil spills, ship groundings, and severe storms. Through Community-based Restoration Program projects, thousands of acres of fisheries habitat have been restored, rehabilitated, and protected and hundreds of miles of streams have been opened to migratory fish since 2000. The local community supported these restoration efforts through the time and effort of over 1,000 volunteers. The NOAA Restoration Center works with the state of Alabama to protect over one and half miles of shoreline as part of the Swift Tract Living Shoreline Deepwater Horizon Early Restoration project. The goal of this project is to reduce shoreline erosion by dampening wave energy and encouraging reestablishment of habitat in the region. See the interactive [Restoration Atlas](#) to find habitat restoration projects near you. Site visits to see habitat projects may be available in your state, please inquire if interested. The [Deepwater Horizon oil spill](#) in 2010 impacted the entire Gulf ecosystem as well as the communities that rely on the Gulf's natural resources. NOAA and other federal and Gulf state partners are working with the public, partners, and industry to support restoration and recovery of the Gulf of Mexico's natural resources using the \$20.8 billion environmental

damage settlement. NOAA led the natural resource damage assessment restoration planning for the *Deepwater Horizon* oil spill. The NOAA Fisheries [Office of Habitat Conservation's](#) Restoration Center is deeply engaged in the coordination of projects through RESTORE, Natural Resource Damage Assessment, and the Gulf Environmental Benefit Fund as a result of the Deepwater Horizon oil spill. [Restoration projects can be found in this interactive mapping atlas.](#)

**National Marine Fisheries Service (NMFS) - [Cooperation with States Program](#) and [Species Recovery Grants](#)**

Under the authority of section 6 of the Endangered Species Act, the Cooperation with States Program brings states, NMFS, and other partners together to recover threatened and endangered species. A total of 25 U.S. territories and coastal states, including Alabama, currently participate in this program. Competitive grants are awarded to states through the Species Recovery Grants to States Program to support management, monitoring, research and outreach efforts for species that spend all or a portion of their life cycle in state waters. The funded work is designed to prevent extinctions or reverse the decline of species, and restore ecosystems and their related socioeconomic benefits.

**National Marine Fisheries Service (NMFS) - [National Marine Mammal Stranding Network](#) and [John H. Prescott Marine Mammal Rescue Assistance Grant Program](#)**

The National Marine Mammal Stranding Network and its trained professionals respond to dead or live marine mammals in distress that are stranded, entangled, out of habitat or otherwise in peril. Our long-standing partnership with the Network provides valuable environmental intelligence, helping NOAA establish links among the health of marine mammals, coastal ecosystems, and coastal communities as well as develop effective conservation programs for marine mammal populations in the wild. There is one stranding network member in the state. NOAA Fisheries funds eligible members of the Stranding Network through the competitive John H. Prescott Marine Mammal Rescue Assistance Grant Program.

**National Marine Fisheries Service (NMFS) - [Sea Turtle Salvage and Stranding Network](#)**

The Sea Turtle Stranding and Salvage Network (STSSN) was formally established in 1980 to collect information on and document strandings of marine turtles along the U.S. Gulf of Mexico and Atlantic coasts. The network, which includes federal, state and private partners, encompasses the coastal areas of the eighteen-state region from Maine to Texas, and includes portions of the U.S. Caribbean. Data gathered by the Network helps inform bycatch reduction efforts, monitor factors affecting turtle health, and provide other information needed for sea turtle management and population recovery.

**National Marine Fisheries Service (NMFS) - [Southeast Regional Office, Gulf of Mexico Bay Watershed Education and Training Program](#)**

The NOAA Bay Watershed Education and Training (B-WET) program is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment. The primary delivery of B-WET is through competitive funding that promotes Meaningful Watershed Educational Experiences. The Gulf of Mexico B-WET program currently serves Alabama, Florida, Louisiana, Mississippi, and Texas. The Gulf of Mexico B-WET program recognizes that knowledge and commitment built from firsthand experience, especially in the context of one's community and culture, is essential for achieving environmental stewardship. Gulf of Mexico B-WET responds to regional education and environmental priorities through local implementation of competitive grant funds. Please see the regional funding opportunity for priorities and eligibility details.

**National Marine Fisheries Service (NMFS) - [Southeast Regional Office](#) and [Southeast Fisheries Science Center](#)**

NMFS studies, protects and conserves living marine resources to promote healthy, functioning marine ecosystems, afford economic opportunities and enhance the quality of life for the American public. NMFS' Southeast Regional Office (headquartered in Saint Petersburg, FL) and Southeast Fisheries Science Center (headquartered in Miami, FL) are responsible for living marine resources in federal waters of the Gulf of Mexico, South Atlantic, and U.S. Caribbean. Using the authorities provided by the *Magnuson-Stevens Fishery Conservation and Management Act*, *Endangered Species Act*,

*Marine Mammal Protection Act* and other federal statutes, the Southeast Regional Office and Southeast Fisheries Science Center partner together to assess and predict the status of fish stocks, marine mammals and sea turtle populations, as well as other protected resources, including coral. Additionally, in collaboration, they develop and ensure compliance with fishery regulations, restore and protect habitat, and recover threatened and endangered species in waters off Alabama and throughout the Southeast Region. The Southeast Regional Office also fosters sustainable [aquaculture](#) in the region, with two Regional Aquaculture Coordinators that act as a liaison between federal and state agencies to assist in permitting and coordination activities, supporting aquaculture outreach and education, and collaborating with industry, academia and other stakeholders on regional marine aquaculture issues.

The [Southeast Fisheries Science Center](#) provides the scientific advice and data needed to effectively manage the living marine resources of the Southeast region and Atlantic high seas through the following divisions.

[Fisheries Assessment, Technology, and Engineering Support](#) division provides essential services and development of new innovative technologies to support the center's mission. The branches of Biology and Life History, Advanced Technology, Gear Research, and Gear and Vessel Support branches provide state-of-the-art life history information and innovative solutions to reduce bycatch and optimize the performance of biological and fishery monitoring programs across the science center.

[Fisheries Statistics](#) division provides extensive support to management and science through the collection, management, and dissemination of commercial and recreational fisheries statistics. The branches of Commercial Fisheries Monitoring, Recreational Fisheries Monitoring, Survey Design, Data Management and Dissemination, Catch Validation and Bio-sampling, and Observer Program works extensively with various internal and external partners to collect the fishery dependent information used to support marine resource management in the region.

[Marine Mammals and Sea Turtles](#) division supports and conducts science that leads to improved knowledge and meaningful conservation of marine mammals and turtles and their habitats in a changing environment, helping to achieve NOAA Fisheries' mission of implementing the Marine Mammal Protection Act and Endangered Species Act and making a positive impact on society.

[Population and Ecosystems Monitoring](#) division provides data, analytical products, research, and expertise to support NOAA Fisheries priorities. The branches of Ocean and Coastal Pelagics, Trawl and Plankton, Gulf and Caribbean Reef Fish, Atlantic and Caribbean Reef Fish and Habitat Ecology carry out fishery-independent surveys and applied research focused on fisheries and habitat ecology, and provides support for ecosystem- and climate-related initiatives in the region.

[Sustainable Fisheries](#) division works in partnership with fisheries managers and constituents to provide reliable scientific advice that enhances the stewardship of living marine resources. The branches of Gulf of Mexico Fisheries, Atlantic Fisheries, Highly Migratory Species, Caribbean Fisheries, and Data Analysis and Assessment Support also strive to advance scientific knowledge and promote diverse and sustainable fisheries through innovative research and development activities, and the use of advanced technologies.

[Social Science Research Group](#) conducts research and data collections to assess the social and economic performance of fisheries and regulatory impacts.

**National Marine Fisheries Service (NMFS), National Ocean Service (NOS), and NOAA General Counsel - [Damage Assessment, Remediation, and Restoration Program](#)**

NOAA's Damage Assessment, Remediation, and Restoration Program (DARRP) assesses and restores habitat, fisheries, protected species and recreational uses that have been harmed by oil spills, chemical releases, and ship groundings. Working with federal, state, and tribal entities, and responsible parties, we have recovered funding from responsible parties for restoration of critical habitats, fisheries, protected species and recreational uses nationwide. These projects promote recovery of the ecosystem and provide economic benefits from tourism, recreation, green jobs, coastal resiliency, property values and quality of life. Alabama is a co-trustee with NOAA for assessment and restoration after pollution incidents in Alabama. For more information about our work in Alabama, visit: [DARRP in Your State](#) (and use the top menu to navigate to "Alabama") and this [interactive map](#).

#### **National Marine Fisheries Service (NMFS) - [Office of Law Enforcement](#)**

NOAA's Office of Law Enforcement is the only conservation enforcement program (Federal or State) that is exclusively dedicated to Federal fisheries and marine resource enforcement. Its mission is to protect global marine resources by enforcing domestic laws and international treaties and obligations dedicated to protecting wildlife and their natural habitat. Our special agents and enforcement officers ensure compliance with these laws and take enforcement action if there are violations. Additionally, the Cooperative Enforcement Program allows NOAA the ability to leverage the resources and assistance of 27 coastal states and U.S. territorial marine conservation law enforcement agencies in direct support of the Federal enforcement mission. Effective fisheries law enforcement is critical to creating a level playing field for U.S. fishermen and enabling sustainable fisheries to support vibrant coastal communities. The Office of Law Enforcement's Southeast Division is headquartered in St. Petersburg, Fla., with an Alabama field office in Mobile.

#### **National Ocean Service (NOS) - Mussel Watch Program**

The National Oceanic and Atmospheric Administration (NOAA) Mussel Watch Program (MWP) monitors the status and trends of chemical contaminants and biological stressors in the nation's coastal waters. MWP began in 1986, and is based on the periodic collection and analysis of bivalves (oysters and mussels) and sediment from a network of more than 300 monitoring sites nationwide. Contaminants monitored at each site include the EPA's Priority Pollutant List of toxic substances and a suite of chemicals of emerging concern such as flame retardants, PFAS, pharmaceuticals, and current use pesticides.

#### **National Ocean Service (NOS) - [Phytoplankton Monitoring Network](#)**

The Phytoplankton Monitoring Network (PMN) is a nationwide community-based volunteer program of citizen scientists monitoring for the presence of organisms that can lead to Harmful Algal Bloom (HAB) formation. Volunteers serve as data collectors for marine and freshwater blooms at more than 200 coastal and inland sites in the U.S. and Caribbean. Monitoring is conducted year-round and volunteers are trained to measure salinity, air and water temperatures, and how to collect phytoplankton samples using a plankton net. Samples are then analyzed for any HAB organisms via microscopy. Data collected by PMN volunteers enhances the Nation's ability to respond to and manage the growing threat posed by HABs by collecting important data for species composition and distribution in coastal and freshwater environments and creating working relationships between volunteers and professional marine biotoxin researchers. Event monitoring can assist state and federal agencies to issue timely warnings about shellfish consumption and other public health concerns.

#### **National Ocean Service (NOS) - Aquaculture Phytoplankton Monitoring Network**

The Aquaculture Phytoplankton Monitoring Network (AQPMN) is a volunteer-based network that works with coastal US aquaculture farms and organizations. The network has adapted its protocols to specifically monitor for species known to have adverse effects on shellfish and finfish aquaculture. Participating hatcheries and growers receive training on methods to collect and identify local phytoplankton and potential HAB species. NOAA supplies each network member with plankton nets, thermometers, salt refractometers and digital microscopes free of charge.

**National Ocean Service (NOS) – [NOAA RESTORE Science Program](#)**

The mission of NOAA's RESTORE Science Program is to carry out research, observation, and monitoring to support the long-term sustainability of the Gulf of Mexico ecosystem. The Science Program receives 2.5 percent of the Gulf Coast Restoration Trust Fund, which is funded from penalties associated with the Deepwater Horizon Oil Spill. The Science Program uses stakeholder input to design funding competitions that support teams of resource managers and researchers to work collaboratively to address regional needs. The Science Program has an office at the Stennis Space Center.

**National Ocean Service (NOS) - Students for [Zero Waste Week](#)**

Students are inviting their local communities to "Go Green and Think Blue" by joining them in the annual *Students for Zero Waste Week campaign*. During this campaign led by the Office of National Marine Sanctuaries, students focus on reducing land-based waste in order to protect the health of local marine environments. These young leaders are raising awareness of how single-use plastic and other types of litter affect the health of local watersheds, national marine sanctuaries, and the ocean. In addition, some schools are looking at ways to reduce their energy use on campus with hopes of raising awareness of how the burning of fossil fuels also impacts the health of the ocean.

**National Ocean Service (NOS) - [Regional Geodetic Advisor](#)**

The Regional Geodetic Advisor is a National Ocean Service (NOS) employee that resides in a region and serves as a liaison between the National Geodetic Survey (NGS) and its public, academic and private sector constituents within their assigned region. NGS has a Regional Geodetic Advisor stationed in Lake City, Florida serving the Gulf Coast region – Alabama, Florida, Louisiana, and Mississippi. The Geodetic Advisor provides training, guidance and assistance to constituents managing geospatial activities that are tied to the National Spatial Reference System (NSRS), the framework and coordinate system for all positioning activities in the Nation. The Geodetic Advisor serves as a subject matter expert in geodesy and regional geodetic issues, collaborating internally across NOS and NOAA to ensure that all regional geospatial activities are properly referenced to the NSRS.

**National Weather Service - [NEXRAD \(WSR-88D\) Systems](#)**

NEXRAD is used to warn the people of the United States about dangerous weather and its location. This radar technology allows meteorologists to warn the public to take shelter with more notice than ever before. The NEXRAD network provides significant improvements in severe weather and flash flood warnings, air traffic safety, flow control for air traffic, resource protection at military bases, and management of water, agriculture, forest, and snow removal. NEXRAD radar has a range of up to 250 nautical miles, and can provide information about wind speed and direction, as well as the location, size, and shape of precipitation. There are 159 operational NEXRAD radar systems deployed throughout the United States and overseas, of which five are in Alabama.

**National Weather Service (NWS) - [Automated Surface Observing Systems Stations](#)**

The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorm, and fog. There are 17 ASOS stations in Alabama.

**National Weather Service (NWS) - [Cooperative Observer Program Sites](#)**

The National Weather Service (NWS) Cooperative Observer Program (COOP) uses the help of more than 10,000 volunteers who take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops.

The data are representative of where people live, work and play. The COOP was formally created in 1890 under the NWS Organic Act to provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, required to define the climate of the United States and to help measure long-term climate changes, and to provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS. The data are also used by other federal (including the Department of Homeland Security), state and local entities, as well as private companies (such as the energy and insurance industries). In some cases, the data are used to make billions of dollars' worth of decisions. For example, the energy sector uses COOP data to calculate the Heating and Cooling Degree Days which are used to determine individuals' energy bills monthly. There are 154 COOP sites in Alabama.

**National Weather Service (NWS) - [NOAA Weather Radio All Hazards Transmitters](#)**

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service (NWS) forecast office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week. Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it the single source for comprehensive weather and emergency information. In conjunction with federal, state, and local emergency managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages). Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the NWS. NWR includes 1,100 transmitters covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. There are 21 NWR transmitters in Alabama.

**Office of Oceanic and Atmospheric Research (OAR) - [Mississippi-Alabama Sea Grant College Program](#)**

The National Sea Grant College Program (Sea Grant) is a federal-university partnership administered by NOAA that integrates research, extension outreach, and education. Sea Grant forms a national network of 34 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. The Mississippi-Alabama Sea Grant Consortium is a federal-state partnership that matches NOAA Sea Grant expertise and resources with state academic institutions. Created in 1972, members of the consortium include Auburn University, Dauphin Island Sea Lab, Jackson State University, Mississippi State University, The University of Alabama, The University of Alabama at Birmingham, the University of Mississippi, The University of Southern Mississippi and the University of South Alabama. The mission of Mississippi-Alabama Sea Grant Consortium is to enhance the sustainable use and conservation of ocean and coastal resources to benefit the economy and environment. The bi-state consortium focuses on healthy coastal ecosystems, sustainable fisheries and aquaculture, resilient communities and economies, and environmental literacy and workforce development. Extension agents are located in Mobile. Get involved with Sea Grant through state and national opportunities like the John A. Knauss Marine Policy Fellowship program at [seagrant.noaa.gov](http://seagrant.noaa.gov).

**Office of Oceanic and Atmospheric Research (OAR) - [VORTEX-SE and PERiLS](#)**

In support of the [VORTEX-SE](#) and [PERiLS](#) field projects, the NOAA Physical Sciences Laboratory operates and maintains an integrated 449-MHz wind profiler observing system, 915-MHz wind profiler with RASS sources, ASSIST infrared spectrometer, microwave radiometer, and laser ceilometer at Courtland, Alabama. Data collected at these site will be used to better understand the atmospheric conditions that lead to severe storms and the sources of rotation for tornadic development.

**NOAA In Your State** is managed by [NOAA's Office of Legislative and Intergovernmental Affairs](#) and maintained with information provided by NOAA's Line, Corporate, and Staff Offices. Questions about specific programs or offices should be directed to the NOAA Line, Corporate, or Staff Office listed.

More information for those offices may be found at [NOAA.gov](#).

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